0590

OIPE

RAW SEQUENCE LISTING

3 <110> APPLICANT: Young, Paul

PATENT APPLICATION: US/09/873,367

DATE: 08/07/2001 TIME: 10:09:43 #Z

Input Set : N:\paola\09873367.txt

Output Set: N:\CRF3\08072001\1873367.raw

```
Soppet, Daniel
              Endress, Gregory
              Augustus, Meena
              Ebner, Reinhard
              Carter, Kenneth
     10 <120> TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using
Signature Gene
     11
              Sets
     13 <130> FILE REFERENCE: 689290-64
                                                                 ENTERED
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/873,367
C--> 15 <141> CURRENT FILING DATE: 2000-06-05
     15 <150> PRIOR APPLICATION NUMBER: U.S. 60/209,473
     16 <151> PRIOR FILING DATE: 2000-06-05
                                                             ENTERED
     18 <150> PRIOR APPLICATION NUMBER: U.S. 60/209,531
     19 <151> PRIOR FILING DATE: 2000-06-05
     21 <150> PRIOR APPLICATION NUMBER: U.S. 60/236,842
     22 <151> PRIOR FILING DATE: 2000-09-29
     24 <150> PRIOR APPLICATION NUMBER: U.S. 60/236,891
     25 <151> PRIOR FILING DATE: 2000-09-29
     27 <150> PRIOR APPLICATION NUMBER: U.S. 60/244,867
     28 <151> PRIOR FILING DATE: 2000-11-01
     30 <150> PRIOR APPLICATION NUMBER: U.S. 60/245,084
     31 <151> PRIOR FILING DATE: 2000-11-01
     33 <160> NUMBER OF SEQ ID NOS: 1067
     35 <170> SOFTWARE: PatentIn version 3.0
     37 <210> SEQ ID NO: 1
     38 <211> LENGTH: 447
     39 <212> TYPE: DNA
     40 <213> ORGANISM: Homo sapiens
     42 <220> FEATURE:
     43 <221> NAME/KEY: misc_feature
     44 <223> OTHER INFORMATION: n=a,t,g or c
     47 <400> SEQUENCE: 1
                                                                               60
     48 tttttttgct tttccccctc tatctcaaat gcctcactcc gggacaaata ttccttctta
                                                                              120
     50 gcactactta acataaataa atcaattttg gctcttcaaa gtcattctgc atataatcct
     52 gtcaccetta taggageeta etgtacatte teattgtgaa ecaatetete tttacattea
                                                                              180
W--> 54 caatattatg atgentteae ngggagggge tetteeceaa ggtaaatgta geteatttaa
                                                                              240
                                                                              300
W--> 56 naaactacag tggggctctg tgatctatgt acacatgtat gtcacatatt tgaccattta
     58 aaaaacacag aaacccttga gactttctgt aaaattttgg gatcataaaa tatattaaaa
                                                                              360
     60 agcagaccaa aggcaaggca ttctggttct ctgacgtccc ccggtctagt ttaattcatt
                                                                              420
                                                                              447
     62 ttcccagtat tggggaaaag cagggca
     65 <210> SEQ ID NO: 2
     66 <211> LENGTH: 405
     67 <212> TYPE: DNA
     68 <213> ORGANISM: Homo sapiens
     70 <220> FEATURE:
```

71 <221> NAME/KEY: misc_feature

RAW SEQUENCE LISTING DATE: 08/07/2001 PATENT APPLICATION: US/09/873,367 TIME: 10:09:43

Input Set : N:\paola\09873367.txt

Output Set: N:\CRF3\08072001\1873367.raw

	72 <223> OTHER INFORMATION: n=a,t,g or c	
	75 <400> SEQUENCE: 2	
	76 aaatatggaa cgcttcacga atttgcgtgt catccttgcg caggggccat gctaatcttc	60
	78 totgtatogt tocaatttta gtatatgtgc tgccgaagcg agcaccgtgc ttagttattc	120 .
	80 taagtgaggg ccccaggatc cacctgccta ggcttcccaa agtgctggga ttacaggcgt	180
	82 gacccaccgc gcccagccaa gttttggttt cctcaactgg aggtaatatt acatatttta	240
	84 cttatacata tgcataagta aacaaagagg gttgttttga gggtcaaata aattgatgga	300
	86 tgttaacgct ctnctggtaa attataaagc actatacaaa tacaaggcat tattgttaat	360
M>	88 aatagagett aattacacet gteeteattt gatetetean agace	405
	91 <210> SEQ ID NO: 3	•
	92 <211> LENGTH: 364	
	93 <212> TYPE: DNA	
	94 <213> ORGANISM: Homo sapiens	
	96 <220> FEATURE: 97 <221> NAME/KEY: misc_feature	
	98 <223> OTHER INFORMATION: n=a,t,g or c	
	101 <400> SEQUENCE: 3	
	102 gttttaaaac atttctttat tagtatatag acagtaaagc atgaaataga tacaaacatt	60
	104 acttataaaa atgttttgaa agaacatttg aaaaatagat gaatgtcttc tagccagtta	120
	106 atagcagaga aagaatttag ttttggtage tcataagtca gtaaccgtat gccatgtcte	180
W>	108 cagaagtaaa atccgtctgt tttccagaaa aatgtgatgt agngaattnt cattttatgt	240
	110 gttattttgc actcattaat gtaaatttta gatttaaaaa aatcaagttt atttgctttc	300
W>	112 taagaaaatg gnctccttnc ccattcgcca gtagnttaat atatgttcta cggtgtgggt	360
	114 gtgt	364
	117 <210> SEQ ID NO: 4	
	118 <211> LENGTH: 158	
	119 <212> TYPE: DNA	
	120 <213> ORGANISM: Homo sapiens	
	122 <400> SEQUENCE: 4	
	123 ttttttttt gcaagaaaca catggggatg gttttatttt tataattggt taaaaaagtt	60
	125 totcaaagtg aagtttagga gtgagtttta gtgttttgta atttgaagaa aagtgtotta	120
	127 aaattcaaag ataccaatgg aaagataaaa gtttgggg	158
	130 <210> SEQ ID NO: 5	
	131 <211> LENGTH: 271	,
	132 <212> TYPE: DNA	
	133 <213> ORGANISM: Homo sapiens 135 <400> SEQUENCE: 5	
	136 gatttttcaa aattaacttt tttattaatt taaaaatcca gaaatacagt gactacataa	60
	138 ataagtacca taattaggta catgtcctgt gagaacagtg aaagggtaat actgttatgt	120
	140 tactcttact tgtttacatg agttaactag aaaatggcta caactgctaa atgatgctta	180
	142 tggtctttgt tgttccaagt gtttatgata caaataaata cacaagaaga accacatcca	240
	144 ttcttctcta ctaactacag gcagcttggg g	271
	147 <210> SEQ ID NO: 6	
	148 <211> LENGTH: 486	
	149 <212> TYPE: DNA	
	150 <213> ORGANISM: Homo sapiens	
	152 <220> FEATURE:	
	153 <221> NAME/KEY: misc_feature	
	154 <223> OTHER INFORMATION: n=a,t,g or c	



DATE: 08/07/2001 TIME: 10:09:43 PATENT APPLICATION: US/09/873,367

Input Set : N:\paola\09873367.txt

Output Set: N:\CRF3\08072001\1873367.raw

	157	<400> SEQUENCE: 6	
•		ttccaaqaaq aacatttttc tgtttattct tagaatgtga atttttttt tcaactcagg	60
		gccaagtaca aacttttgat ttttgaaatt ttttcaactc agggccaagt acaatctttt	120
		gatttaaaaa tttttttca tgaacaaacc atcagtagtt attaaggagc ccaagaaata	180
		ggagatgtga aagcaggatt tetttgtgtt teetttgaat gttgttattt tgagtattat	240
		cattatcagg tagaggaaga aaggtaggct gggaagtagg teettatgat atettgacta	300
W>		tggatcccag atttacattt caccingtca cagagcacac ataatttaag ataaacatgt	360
		caagaatgac ataaaccaga ggtaaacacc aaggagcttt acatttggaa ccngaaaata	420
		aaaattagaa aaattattac cccatattaa taaccaaaaa attacttaaa ctcctaggnc	480
		ccengg	486
	177	<210> SEQ ID NO: 7	
	178	<211> LENGTH: 502	
	179	<212> TYPE: DNA	
	180	<213> ORGANISM: Homo sapiens	
	182	<220> FEATURE:	
	183	<221> NAME/KEY: misc_feature	
	184	<223> OTHER INFORMATION: n=a,t,g or c	
		<400> SEQUENCE: 7	
		cacatttttc catctaattt ttatttggag aaaataattt cagtatgaaa ttattctaat	60
		aaaattatto taacatacaa ttaggagata attattttat toatcacaaa atttactact	120
		tttacactta gagaccagtg aacgtatgta ccattacctt ttgaaagaca gaatgtctcc	180
	194	toatattgtt ttottacttt ctagacataa caagcacctt gccatcacac tgaaaagatc	240
	196	ataaaatata tagtgttgac ttaaaaatca gtatgatatc tgagactggt tttaataaaa	300
	198	ggaagaatca ttgaatttga gtactgaagt tgaaaactag ccatatttgg ttataaattc	360
M>	200	ctcttaaaaa attagtagtt tctactttgg attnttcctt cnggatggat ttcaccctt	420
		aatttagaag tenaaatace tteaaatttt teeeteenta aaatngttaa tttgeeacae	480
M>		agactagggg aatangggaa cg	502
		<210> SEQ ID NO: 8	-
		<211> LENGTH: 590	
		<212> TYPE: DNA	
		<213> ORGANISM: Homo sapiens	
		<220> FEATURE:	
		<pre><221> NAME/KEY: misc_feature <223> OTHER INFORMATION: n=a,t,g or c</pre>	
		<400> SEQUENCE: 8	
		atatgettge aggttatate ttagtgeaat teagteecaa ataetttaat tttgaaaaga	60
		aaaaaaaaca tacatttttg aatgtaaaat acccctacag atataaacag gggcgtttcc	120
		cotottaata otttggtttt caatacagto agtggtatag caaagactac acatacccaa	180
	224	cttatattta agttgcaagc acatgctgta taagctactt tttttaaaca gtccccttgc	240
	226	aaactctacc ccccttaaca tcacaatagt aaacaattta gtgcatcaat cgtttaaaaa	300
		atctacagct aaacagacct aactctttca aatttatcta taacattcct ttatctgtag	360
	230	catacatttt aactgggcta acagattata aaaactagaa ttaaattata tactagaaac	420
	232	ccagagcatt ccacatttga caatgaccaa aagccaaaaa atataaaata aaaataaaac	480
W>		aaaccaaaaa taatggggcg tttccctttt aaaaaataaa ttttagctgc ntctcggnaa	540
		tanccaattt aggncccaag tggggcgcca tctattaaag gnacattagg	590
,		<210> SEQ ID NO: 9	
		<211> LENGTH: 496	
		<212> TYPE: DNA	
		<213> ORGANISM: Homo sapiens	



DATE: 08/07/2001

TIME: 10:09:43

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/873,367

Input Set : N:\paola\09873367.txt

Output Set: N:\CRF3\08072001\1873367.raw

	244	<220> FEATURE:	•
	245	<221> NAME/KEY: misc_feature	
	246	<223> OTHER INFORMATION: n=a,t,g or c	
	249	<400> SEQUENCE: 9	
	250	ttttttttt ttttccagt tctttcttt ttattctgca gttttctatc agtgtcgggt	60
		ccccactcc agccagtggt gtggggaagg gaagacatct ctagggacac gactacagac	120
W>		caggeagtga geetageaac catacatega aggtgtegee ageeteagtg eeggtggneg	180
		tetgeaceag gaatagetaa ageegaegae atetageeae etegagegee agggaagaeg	240
W>		ctccggtana aaccgcggcc tcaggcggac tcccgctcca gctccgcgct gctggtggca	300
		tttccgggga cccaaagtgg gtggccttcg tcttgccccc gcagtggcag cacacggtcc	360
		acaggtactt gagcgtccgc cagagcaaga tgatgaagag gccccgaaga aagtcaccat	420
W>		ggaaggaggc caggaaagcc caccaaatgc gttngncccg gntgtcgaan ggaacctcca	480
		tggtcancgg gatgat	496
•		<210> SEQ ID NO: 10	
		<211> LENGTH: 449	
		<212> TYPE: DNA	
		<213> ORGANISM: Homo sapiens	
		<400> SEQUENCE: 10	
		caaaaataat gcttaaaaga gacttctaga aacagtggga ctacatcagg accagaagac	60
		agtgacacaa ggactgcaaa tgttaagact aggagtagct tttcacatgg agcttttatg	120
		tagaggacgt ctccttctgt tgattcctac agccgagaca agatgtgatc acaggagact	180
		ccaaaatctc aaactgggct tgagtaacac cctagataaa catcaggaac cccactgagg	240
	283	ctgaagtact gaaactgtgg cccatgtgaa aaagaggtgc aagtgccaaa gattcatgca	300
	285	gagectgetg gaacagaggg tggtggegge gggttagtee acacttacac accageaggt	360
		atgctgggga aagggccccc caggtggagt gcctgacata gggctcgctc cagaggcgtc	420
		tgactcagaa gctcctgaga gaggtgtca ,	449
*		<210> SEQ ID NO: 11	
		<211> LENGTH: 367	
		<212> TYPE: DNA	
		<213> ORGANISM: Homo sapiens	
		<400> SEQUENCE: 11	
		tatagactca ttttcaggtt attaaatgta agagaaacag atacccctct tttttaaagt	60
	300	aggtaaatca ttgatgattt atattaccaa tttttagaag taattttcta gtaagcttgt	120
	302	ggcatcagaa aatactagaa gatttttta gttaaattag ttagaacatt tatgaatgaa	180
	304	tataataaat atttttcag aataaaatat ggaccctttg tgtttactaa tagataaagc	240
		cagatagtaa ttttttgttt ttaaggccac aaaatatggc ctttgttaaa gaacactaaa	300
	308	gttagaaatc taaagttaga gcaacttttt aatggctatt tcctattatt gtaagtgtta	360
	310	aaacccc	367
	313	<210> SEQ ID NO: 12	
	314	<211> LENGTH: 650	
	315	<212> TYPE: DNA	
	316	<213> ORGANISM: Homo sapiens	
	318	<220> FEATURE:	
		<221> NAME/KEY: misc_feature	
	320	<223> OTHER INFORMATION: n=a,t,g or c	
		<400> SEQUENCE: 12	
		ttttttttt tcctttaaat ccctaatgtt cacaagtcat catgtggaac taaaatcaca	60
		cacaaaggca aatcatgagg aaacgttaaa tatttcaaaa tgcccacgag gcgtgccaga	120
	328	aacagtgctg tatctatagc acagaatcgt tggaggccaa agctaaagca gtaggggcta	180





DATE: 08/07/2001 RAW SEQUENCE LISTING TIME: 10:09:43 PATENT APPLICATION: US/09/873,367

Input Set : N:\paola\09873367.txt

Output Set: N:\CRF3\08072001\1873367.raw

	330	ctgcaacttc tagctcttta	ctgctgcttt	tttgtttgtt	tgatagaggg	ggattcaggt	240
	332	gaggggttc ggtctctcag	gaagttaggc	cataatttct	gcaggttcag	tgattaactt	300
	334	ggatccatcc catgctgtct	tgaactgttc	aggaatggga	aattctctat	aatcaccatc	360
	336	ctgagggata agtatgttca	tttcagatga	cttggcgctc	acgatctcac	agtctaatgc	420
	338	atcttcactg aggtatatgt	ggcaaccttc	tgtcttatta	atggaaattg	ttggcactct	480
₩>		ccccattacc tggatttgaa					540
		ggcnaacacc agccgagttt					600
W>	344	ccaattccta tngggcggat	taatcgaacc	agcaactgtt	ccggngaatg		650
	347	<210> SEQ ID NO: 13					
	348	<211> LENGTH: 490					
	349	<212> TYPE: DNA	•				
	350	<213> ORGANISM: Homo	sapiens				
	352	<400> SEQUENCE: 13					
		cttgttccaa tcgttcctct					60
	355	cctcctcctc ctcttcaggg	ttttctttta	cttctatatg	aactgtgttt	ccttctactt	120
	357	tttctgtctc ctcatcactg	gccatagctt	cccaatcatc	caatccagca	tcctcagtat	180
		cttcttcttc ttctggttca					240
	361	ccataacttc tacagcagca	cataattcca	ttgattcaga	cacttcttta	ctttctagct	300
	363	gctgtggtat tttttcctc	tttttatctt	cataaattgg	cctcttcttt	ggcaaagagt	360
	365	cttttgatgg cacttcaaca	ccctgagctt	gtagcagttt	aagagtagct	tcggctctgg	420
	367	ctctggcttc tctctgggat	ttagttaaaa	gtttccctct	ttttcaagcg	ttctttcttc	480
	369	tttctcgtgg					490
	372	<210> SEQ ID NO: 14					
	373	<211> LENGTH: 429	•				
		<212> TYPE: DNA				•	
		<213> ORGANISM: Homo	sapiens				
	377	<400> SEQUENCE: 14	_				
	377 378	<400> SEQUENCE: 14 tgggggtgac tgtcctggtg	aggggagcct				60.
	377 378 380	<400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga	aggggagcct tgggacactc	actcatgcgc	ttgccgactt	ggtgcaggta	120
	377 378 380 382	<400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag	aggggagcct tgggacactc taggacacag	actcatgcgc tcgatgacgg	ttgccgactt catccatgca	ggtgcaggta gatgcgacac	120 180
	377 378 380 382 384	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc	actcatgcgc tcgatgacgg agccgctcgc	ttgccgactt catccatgca cataggactt	ggtgcaggta gatgcgacac ttggttttct	120 180 240
	377 378 380 382 384 386	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt	ttgccgactt catccatgca cataggactt cccattttc	ggtgcaggta gatgcgacac ttggttttct acaacagcca	120 180 240 300
	377 378 380 382 384 386 388	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc	120 180 240 300 360
	377 378 380 382 384 386 388 390	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc	120 180 240 300 360 420
	377 378 380 382 384 386 388 390 392	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc	120 180 240 300 360
	377 378 380 382 384 386 388 390 392 395	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc	120 180 240 300 360 420
	377 378 380 382 384 386 388 390 392 395 396	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc	120 180 240 300 360 420
	377 378 380 382 384 386 390 392 395 396 397	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc	120 180 240 300 360 420
	377 378 380 382 384 386 390 392 395 396 397 398	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc	120 180 240 300 360 420
	377 378 380 382 384 386 390 392 395 396 397 398 400	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctcc	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc ttggagagcc	120 180 240 300 360 420 429
	377 378 380 382 384 386 390 392 395 396 397 398 400 401	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactccttt</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc ttggagagcc	120 180 240 300 360 420 429
	377 378 380 382 384 386 390 392 395 396 397 398 400 401 403	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactcctttt gaagaaaacc cccagcagtg</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc ttggagagcc	120 180 240 300 360 420 429
	377 378 380 382 384 386 388 390 392 395 396 397 398 400 401 403 405	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactcctttt gaagaaaacc cccagcagtg attctattca tccttgttgc</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag sapiens ttttaattt gctaggtcat actttagaga	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct cacaaaagtt gcagaaccat gagaagtaag	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat ctatgtgagt	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc ttggagagcc caacgttata accttggccc tttacaatgc	120 180 240 300 360 420 429
	377 378 380 382 384 386 390 392 395 396 397 398 400 401 403 405 407	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactcctttt gaagaaaacc cccagcagtg attctattca tccttgttgc ttttaaactg tcatattcc</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag saplens ttttaattt gctaggtcat actttagaga tgttgagcac	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct cacaaaagtt gcagaaccat gagaagtaag tttaactggc	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat ctatgtgagt acattcttat	ggtgcaggta gatgcgacac ttggttttct acaacagcca tcattccttc ttggagagcc caacgttata accttggccc tttacaatgc agttataaat	120 180 240 300 360 420 429 60 120 180 240
	377 378 380 382 384 386 390 392 395 396 397 398 400 401 403 405 407	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactccttt gaagaaaacc cccagcagtg attctattca tccttgttgc ttttaaactg tcatatttcc gttctgaggg cgtaacttta</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag sapiens ttttaattt gctaggtcat actttagaga tgttgagcac taacctcctt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct cacaaaagtt gcagaaccat gagaagtaag tttaactggc tgcaaagaat	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat ctatgtgagt acattcttat gcatgaagag	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc ttggagagcc caacgttata accttggccc tttacaatgc agttataaat ctcttcatga	120 180 240 300 360 420 429 60 120 180 240 300
	377 378 380 382 384 386 390 392 395 396 397 398 400 401 403 407 409 411	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactcctttt gaagaaaacc cccagcagtg attctattca tccttgttgc ttttaaactg tcatatttcc gttctgaggg cgtaacttta tccaatacta ggggatacat</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag sapiens ttttaattt gctaggtcat actttagaga tgttgagcac taacctcctt atatatagtt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct cacaaaagtt gcagaaccat gagaagtaag tttaactggc tgcaaagaat	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat ctatgtgagt acattcttat gcatgaagag	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc ttggagagcc caacgttata accttggccc tttacaatgc agttataaat ctcttcatga	120 180 240 300 360 420 429 60 120 180 240 300 360
	377 378 380 382 384 386 390 392 395 396 397 398 400 401 403 407 409 411 413	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactcctttt gaagaaaacc cccagcagtg attctattca tccttgttgc ttttaaactg tcatatttcc gttctgaggg cgtaactta tccaatacta ggggatacat agttatatat</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag sapiens ttttaattt gctaggtcat actttagaga tgttgagcac taacctcctt atatatagtt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct cacaaaagtt gcagaaccat gagaagtaag tttaactggc tgcaaagaat	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat ctatgtgagt acattcttat gcatgaagag	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc ttggagagcc caacgttata accttggccc tttacaatgc agttataaat ctcttcatga	120 180 240 300 360 420 429 60 120 180 240 300
	377 378 380 382 384 386 390 392 395 396 400 401 403 405 407 409 411 413 416	<pre><400> SEQUENCE: 14 tgggggtgac tgtcctggtg caccacatac tgccggcaga accatgtgcc cacactccag aggctgtcgt cttcctcatc tcattctctt tgtataaccg gaatagttga caaaattccg cacatcatca aggcttgaca cggggttcc <210> SEQ ID NO: 15 <211> LENGTH: 384 <212> TYPE: DNA <213> ORGANISM: Homo <400> SEQUENCE: 15 taaaatttgt aactcctttt gaagaaaacc cccagcagtg attctattca tccttgttgc ttttaaactg tcatatttcc gttctgaggg cgtaacttta tccaatacta ggggatacat</pre>	aggggagcct tgggacactc taggacacag ctgcagctgc gtttactttc agccagaatt agtcagacag sapiens ttttaattt gctaggtcat actttagaga tgttgagcac taacctcctt atatatagtt	actcatgcgc tcgatgacgg agccgctcgc tctaccagtt tccttcagct ttgaagctct cacaaaagtt gcagaaccat gagaagtaag tttaactggc tgcaaagaat	ttgccgactt catccatgca cataggactt cccattttc ggcgcacgct cactctccc ttcacaagga taattgtcat ctatgtgagt acattcttat gcatgaagag	ggtgcaggta gatgcgacac ttggtttct acaacagcca tcattccttc ttggagagcc caacgttata accttggccc tttacaatgc agttataaat ctcttcatga	120 180 240 300 360 420 429 60 120 180 240 300 360

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.